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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,491	08/22/2003	Hiroaki Takano	KON-1813	9424

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LUCAS & MERCANTI, LLP
475 PARK AVENUE SOUTH
15TH FLOOR
NEW YORK, NY 10016

EXAMINER

PRABHAKHER, PRITHAM DAVID

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/646,491

Applicant(s)

TAKANO ET AL.

Examiner

Pritham Prabhakher

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1, 2, 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-7 and 10-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-15 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 04/22/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 and 2, drawn to an apparatus for capturing an image, classified in class 348, subclass 222.1.
- II. Claims 3-7 and 10-15, drawn to an apparatus for processing data and a method for processing data, classified in class 348, subclass 222.1.
- III. Claims 8 and 9, drawn to an apparatus for outputting a reproduced image, classified in class 348, subclass 207.2.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the apparatus for capturing an image can function on it's own without a processor in the instance a user wants raw image data. The subcombination has separate utility such as acquiring the raw data to process. The raw data can be acquired via any memory device. An image capturing apparatus is not necessary.

The examiner has required restriction between combination and subcombination inventions. Where applicant elects a subcombination, and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Inventions I and III are directed to related apparatus for capturing an image and an apparatus for outputting a reproduced image onto an outputting medium. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed have a materially different design and are mutually exclusive, because the apparatus for capturing raw image data has the structure of a camera, and the apparatus for outputting a reproduced image onto an outputting medium has the structure of a printer and scanner. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

During a telephone conversation with Donald Lucas on 11/22/06 a provisional election was made with traverse to prosecute the invention of Takano et al. (US 2004/0041926A1), claims 3-7 and 10-15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-2, and 8-9 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-7 and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagishi (US Pub No.: 2003/0025805A1) and further in view of Matsui et al. (US Pub No.: 2001/0020978A1).

*In regard to **Claim 3**, Yamagishi teaches of an apparatus for processing data (Computer 400 in Figure 1), comprising:*

*a receiving section to receive scene-referred raw data which directly represent an image captured by an image-capturing apparatus while depending on image-capturing characteristics of said image-capturing apparatus, (Raw data is acquired from an image sensing element 14 and stored on a recording medium 200, **Paragraph 0054**. The recording medium is a memory card, **Paragraph 0062**. The raw data is acquired by the computer via the memory card that can be inserted into the communication section 416 of the computer, **Paragraph 0138**. Digital watermark information is also attached to the raw data and stored on the memory card, **Paragraphs 0109 and 0110**. The watermark includes information of the image-capturing characteristics of the camera, **Paragraph 0038**).*

*Although Yamagishi teaches of applying an image-capturing characteristic compensation processing to said scene-referred raw data (Computer does processing, **Paragraph 0110**) to generate scene-referred image data (data of the scene after processing), the reference does not explicitly teach of receiving reproduction-auxiliary data in respect to said scene-referred raw data; and generating scene-referred image data from said scene-referred raw data based on the said reproduction-auxiliary data that is also received by said receiving section.*

*Matsui et al. teach of a means of receiving reproduction-auxiliary data in respect to said scene-referred raw data (data before processing) and generating the scene-referred image data (data after processing) with reference to the reproduction-auxiliary data (The raw data is stored with its associated image property parameters (auxiliary image data) on a memory card. Contents of the memory card are read out by a computer and processing is done on the personal computer with reference to the image property parameters, **Paragraphs 0053,0054 and 0055 of Matsui et al.**).*

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate into Yamagishi image property parameters (reproduction-auxiliary data) as taught by Matsui et al. by which the raw data was to be processed in a computer, because in order for correction/processing to be made to an image, the information regarding what parts of the image need correcting must be present.

*Regarding **Claim 4**, Yamagishi and Matsui et al. disclose the apparatus of claim 3,*

*wherein said scene-referred image data are generated in a standardized format from said scene-referred raw data (The scene-referred image data/processed image data are generated using a unique/dedicated (standard) form of processing, **Paragraph 0141 of Yamagishi**).*

*With regard to **Claim 5**, Yamagishi and Matsui et al. disclose the apparatus of claim 3,*

*wherein said receiving section also receives image-capturing data, which represent image-capturing conditions established at a time of capturing said image (Yamagishi teaches that the raw data is acquired by the computer via the memory card that can be inserted into the communication section 416 (receiving section) of the computer, **Paragraph 0138**. Digital watermark information is also attached to the raw data and stored on the memory card, **Paragraphs 0109 and 0110**. The watermark includes information of the image-capturing characteristics of the camera as well as conditions established at the time of photographing, **Paragraph 0038**).*

*In regard to **Claim 6**, the Yamagishi and Matsui et al. references disclose the apparatus of claim 4, further comprising:*

*an output-referred image data generating section to generate output-referred image data, based on which a reproduced image is formed on an outputting medium, by applying an image-processing for optimizing said reproduced image to said scene-referred image data generated by said scene-referred image data generating section (The processed raw-image data (scene-referred image data) is processed (converted) into a data format so that it can be optimally displayed on a display section (outputting medium), **Paragraph 0139 of Yamagishi**).*

*With regard to **Claim 7**, Yamagishi and Matsui et al. disclose the apparatus of claim 5, further comprising:*

an output-referred image data generating section to generate output-referred image data, based on which a reproduced image is formed on an outputting medium, by applying an image-processing for optimizing said reproduced image to said scene-

*referred image data generated by said scene-referred image data generating section (The processed raw-image data (scene-referred image data) is processed again (watermark embedding processing , **Figure 9, S816 of Yamagishi**) into a data format so that it can be optimally displayed on a display section (outputting medium), **Paragraph 0139 and 0146 of Yamagishi**);*

wherein contents of said image-processing are determined on the basis of said image-capturing data received by said receiving section (Looking at Figure 9, Yamagishi shows that the image-processing is done on the basis of the digital watermark embedding flag information (image capturing data)).

*Regarding **Claim 10**, Yamagishi and Matsui et al. teach of a method for processing data, comprising the steps of:*

*receiving scene-referred raw data, which directly represent an image captured by an image-capturing apparatus while depending on image-capturing characteristics of said image-capturing apparatus (Raw data is acquired from an image sensing element 14 and stored on a recording medium 200, **Paragraph 0054**. The recording medium is a memory card, **Paragraph 0062**. The raw data is acquired by the computer via the memory card that can be inserted into the communication section 416 of the computer, **Paragraph 0138**. Digital watermark information is also attached to the raw data and stored on the memory card, **Paragraphs 0109 and 0110**. The watermark includes information of the image-capturing characteristics of the camera, **Paragraph 0038**).*

*Although Yamagishi teaches of applying an image-capturing characteristic compensation processing to said scene-referred raw data (Computer does processing, **Paragraph 0110**) to generate scene-referred image data (data of the scene after processing), the reference does not explicitly teach of receiving reproduction-auxiliary data in respect to said scene-referred raw data; and generating scene-referred image data from said scene-referred raw data based on the said reproduction-auxiliary data that is also received by said receiving section.*

*Matsui et al. teach of a means of receiving reproduction-auxiliary data in respect to said scene-referred raw data (data before processing) and generating the scene-referred image data (data after processing) with reference to the reproduction-auxiliary data (The raw data is stored with its associated image property parameters (auxiliary image data) on a memory card. Contents of the memory card are read out by a computer and processing is done on the personal computer with reference to the image property parameters, **Paragraphs 0053,0054 and 0055 of Matsui et al.**).*

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate into Yamagishi image property parameters (reproduction-auxiliary data) as taught by Matsui et al. by which the raw data was to be processed in a computer, because in order for correction/processing to be made to an image, the information regarding what parts of the image need correcting must be present.

*In regard to **Claim 11**, Yamagishi and Matsui et al. teach of the method of claim*

10,

*wherein said scene-referred image data are generated in a standardized format from said scene-referred raw data (The scene-referred image data/processed image data are generated using a unique/dedicated (standard) form of processing, **Paragraph 0141 of Yamagishi**).*

*With regard to **Claim 12**, Yamagishi and Matsui et al. teach of the method of claim 11,*

*wherein said reproduction-auxiliary data serve as image-capturing characteristic compensation data (image property parameters), which are employed for converting said scene-referred raw data (data before processing) into said scene-referred image data (data after processing) in a standardized color space (The raw data is stored with its associated image property parameters (auxiliary image data) on a memory card. Contents of the memory card are read out by a computer and processing is done on the personal computer with reference to the image property parameters in an sRGB color space, **Paragraphs 0053,0054, 0055 and 0056 of Matsui et al.**).*

*In regard to **Claim 13**, the references of Yamagishi and Matsui et al. teach of the method of claim 11,*

*wherein, in said receiving step, image-capturing data, which represent image-capturing conditions established at a time of capturing said image, are also received (Yamagishi teaches that the raw data is acquired by the computer via the memory card that can be inserted into the communication section 416 (receiving section) of the computer, **Paragraph 0138**. Digital watermark information is also attached to the raw data and stored on the memory card, **Paragraphs 0109 and 0110**. The watermark*

*includes information of the image-capturing characteristics of the camera as well as conditions established at the time of photographing, **Paragraph 0038**).*

*With regard to **Claim 14**, Yamagishi and Matsui et al. teach of the method of claim 11, further comprising the step of:*

*generating output-referred image data, based on which a reproduced image is formed on an outputting medium, by applying an image-processing for optimizing said reproduced image to said scene-referred image data generated in said applying step (The processed raw-image data (scene-referred image data) is processed (converted) into a data format so that it can be optimally displayed on a display section (outputting medium), **Paragraph 0139 of Yamagishi**).*

*Regarding **Claim 15**, Yamagishi and Matsui et al. teach of the method of claim 13, further comprising the step of:*

*generating output-referred image data, based on which a reproduced image is formed on an outputting medium, by applying an image-processing for optimizing said reproduced image to said scene-referred image data generated in said applying step (The processed raw-image data (scene-referred image data) is processed again (watermark embedding processing , **Figure 9, S816 of Yamagishi**) into a data format so that it can be optimally displayed on a display section (outputting medium), **Paragraph 0139 and 0146 of Yamagishi**);*

wherein contents of said image-processing are determined on the basis of said image-capturing data received in said receiving step (Looking at Figure 9, Yamagishi

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shows that the image-processing is done on the basis of the digital watermark embedding flag information (image capturing data)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pritham Prabhakher whose telephone number is 571-270-1128. The examiner can normally be reached on M-F (7:30-5:00) Alt Friday's Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571)272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Pritham David Prabhakher
Patent Examiner
Pritham.Prabhakher@uspto.gov

Pritham D. Prabhakher


DAVID OMETZ
SUPERVISORY PATENT EXAMINER